

## **REMARKS**

Applicant expresses appreciation to the Examiner for consideration of the subject patent application. This amendment is in response to the Office Action mailed June 8, 2005. Claims 1-10 and 15-25 are under consideration and Claims 11-14 and 26-40 have been withdrawn. Applicant reminds the Examiner that generic Claims 1-10 are readable on both elected and non-elected species and that, upon allowance of a generic claim, Applicant is entitled to consideration of claims to additional species. Claims 1-10 and 15-25 were rejected. Claim 1 has been amended to more clearly claim the present invention and to address the concerns raised by the Examiner. The amendment to Claim 1 is described in the Specification (*e.g.*, page 2, lines 25-33), hence no new matter is added by this amendment.

### **Claim Rejections - 35 U.S.C. § 102**

Claims 1, 5-10, and 15-25 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Application Publication 2002/0036331 to Nickel (hereinafter "Nickel").

The present invention is directed generally towards establishing high quality <111> crystal texture within a magnetic memory cell. The method includes, as claimed in Claim 1, "applying ... at least one layer of composition ... with a level of ion energy that is sufficiently high to enable alignment of the at least one layer ... to a high degree of quality for the <1 1 1> crystal texture across a layer which attenuates crystal texture." For example, a tunneling barrier layer attenuates, or completely terminates, continued propagation of the <111> crystal texture (*see e.g.*, specification page 2, lines 28-33). In general, amorphous layers tend to cause inferior crystal texture in layers grown on top of the amorphous layer (page 3, lines 18-20). As claimed in Claim 1, the present invention helps to establish high quality <111> crystal texture by using a high level of ion energy that enables alignment despite the presence of the tunneling barrier layer (page 2, lines 30-33).

In contrast, Nickel teaches providing crystal texture in a single layer of a memory cell, *e.g.*, the pinned layer (page 3, paragraph 36). In particular, Nickel suggests using a seed layer to establish a preferred crystal texture for the AF pinning layer. Nickel fails to teach maintaining crystal texture with a magnetic memory cell across a layer which attenuates crystal texture, *e.g.*

an amorphous barrier layer. Hence, Applicant submits that Claim 1 is allowable for at least this reason.

As Claims 5-10 and 15-25 are dependent from Claim 1, they are similarly allowable for at least the above reason.

#### **Claim Rejections - 35 U.S.C. § 103**

Claims 2-4 were rejected under 35 U.S.C. § 103 as being unpatentable over Nickel in view of U.S. Patent 5,764,445 to Torng et al. (hereinafter "Torng"). As discussed above, Nickel fails to teach all the limitations of Claim 1, from which Claims 2-4 depend. Torng fails to correct this deficiency. Torng teaches the use of achieving crystal texture using seed layers and spacer layers composed of Ta, which preserves crystal texture (col. 10, lines 4-21). Torng fails, however, to teach maintaining crystal texture within a magnetic memory cell across a layer which attenuates crystal texture.

Therefore, Applicant respectfully submits that claims 2-4 are allowable for at least this reason, and urges the Examiner to withdraw the rejection.

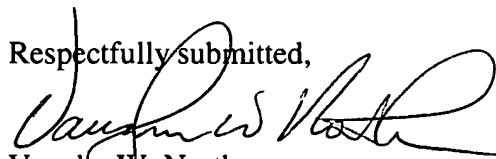
## CONCLUSION

In light of the above, Applicant respectfully submits that pending claims 1-10 and 15-25 are now in condition for allowance. Therefore, Applicant requests that the rejections and objections be withdrawn, and that the claims be allowed and passed to issue. If any impediment to the allowance of these claims remains after entry of this Amendment, the Examiner is requested to call Vaughn North at (801) 566-6633 so that such matters may be resolved as expeditiously as possible.

The Commissioner is hereby authorized to charge any additional fee or to credit any overpayment in connection with this Amendment to Deposit Account No. 08-2025.

DATED this 5<sup>th</sup> day of September 2005.

Respectfully submitted,



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